

NEGOTIATED SUBCONTRACT

STAT

Issuing Office

Name

Address

STAT

Subcontractor

Name

Address

STAT

Subcontract for

Amount

Operating Computer Program
for the Stereocomparator

STAT

Priority

Defense Order Rating DO-A7
Certified under DMS Regulation No. 1

This subcontract is entered into pursuant to statutory authority and any required determination and findings have been made.

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The subcontract is entered into, by and between
 executing this subcontract, and
above named Subcontractor who is an ☐ individual, ☐ partnership, ☐ Corpora-
tion, incorporated in the State of hereinafter called the Subcontractor.

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The parties hereto agree that the Subcontractor will perform all services and deliver all supplies as set forth in the attached Specification No. 9, revised July 15, 1968, issued hereunder for the consideration stated therein.

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Declass Review by

NIMA/DOD

The rights and obligations of the parties to this subcontract shall be subject to and governed by the terms and conditions contained herein, and attached general provisions, Sections A and B. To the extent of any inconsistency between the general provisions and ☐ Specification No. 9, or other provisions which are made a part of this subcontract, by reference or otherwise, the Specification No. 9 shall control. STAT

The Subcontractor represents (a) that it is ☐ is not ☐ a small business concern. For this purpose, a small business concern is a concern that (i) is not dominant in its field of operation and, with its affiliates, employs fewer than 500 employees, or (ii) is certified as a small business concern by the Small Business Administration. (See Code of Federal Reg., Title 13, Ch. II, Part 103, 21 Fed. Reg. 9708, which contains the detailed definition and related procedures), (b) that it has ☐ has not ☐ previously been denied a Small Business Certificate by the Small Business Administration, and (c) if offeror is a regular dealer, it also represents that all supplies to be furnished hereunder will not be manufactured or produced in the United States or its territories or possessions by a small business manufacturer or producer; and, further, make the representations regarding contingent or other fees, set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this contract as of _____, 1968.

SIGNATURES (Type or print all names under all signatures.)

Subcontractor

Contracting Office STAT

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By _____ Title

By _____ Title

WITNESSES (In case of Corporation, witnesses not required, but certificate must be completed.)

NOTE: Subcontractor, if a Corporation, should cause the following certificate to be executed under its corporate seal, provided that the same officer shall not execute both the contract and the certificate.

CERTIFICATE

I, _____, certify that I am
the _____ of the Corporation
named as Subcontractor herein: that _____, who
signed this Contract on behalf of the Subcontractor, was then _____
_____ of said Corporation; that said Contract was duly
signed for and in behalf of said Corporation by authority of its governing
body, and is within the scope of its corporate powers.

(Signature) _____ (Corporate Seal)

SUBCONTRACTOR'S STATEMENT OF CONTINGENT
OR OTHER FEES

The Subcontractor represents: (a) that he has ☐ has not ☐ employed or retained any company or person (other than a full-time bona fide employee working solely for the Subcontractor) to solicit or secure this contract; and (b) that he has ☐ has not ☐ paid or agreed to pay to any company or person (other than a full-time bona fide employee working solely for the Subcontractor) any fee, commission, percentage or brokerage fee, contingent upon or resulting from the award of this Subcontract, and agrees to furnish information relating thereto as requested by the Contracting Officer. (Note: For interpretation of the representation, including the term "bona fide employee", see General Services Administration Regulations, Title 44, Secs. 150.7 and 150.5 (d) Fed. Reg. Dec. 31, 1952, Vol. 17, No. 253.)

TERMS AND CONDITIONS

1. Seller's Invoices -- Invoices shall be prepared and submitted in triplicate unless otherwise specified. Invoices shall contain the following information: Contract number, Order number (if any), Item number; contract description of supplies or services, sizes, quantities, unit prices, and extended totals. Bill of lading number and weight of shipment will be shown for shipments made on Government bills of lading. The Subcontractor or his authorized representative will sign ONLY the original (ribbon typed copy, if typed). When the invoice is signed or receipted in the name of a company or corporation the name of the person signing, as well as the capacity in which he signs, must appear. For example: "John Doe Company, by John Smith, Secretary," "Treasurer," or as the case may be.

2. Discounts -- In connection with any discount offered, time will be computed from date of delivery of the supplies to carrier when delivery and acceptance are at point of origin or from date of delivery at destination or port of embarkation when delivery and acceptance are at either of those points, or from date correct invoice or voucher (properly certified by the Subcontractor) is received in the office specified by ☐ if the latter date is later than the date of delivery.

3. Samples -- Samples of items, when required, must be submitted within the time specified and at no expense to ☐ If not destroyed by testing, they will be returned at Subcontractor's request and expense, unless otherwise specified in the Schedule.

4. Government-Furnished Property -- No material, labor, or facilities will be furnished by ☐ unless otherwise provided in the Schedule.

5. Agents -- Contracts signed by an agent must be accompanied by evidence of his authority.

6. Alterations -- Any alterations in the Subcontract made by the Subcontractor must be initialed by both the Subcontractor and ☐

7. Mistakes -- Subcontractors are expected to examine the drawings, specifications, circulars, schedule and all instructions pertaining to the supplies or services. Failure to do so will be at the Subcontractor's risk. In case of mistake in extension of price the unit price will govern.

Specification No. DB-1001
Issue Date: 5 April 1966
Revised: 2 June 1966
Second Revision: 11 June 1966

CONTRACTUAL DOCUMENTATION TO BE SUPPLIED BY CONTRACTORS

1. SCOPE

- 1.1 This Specification covers the contractual documentation to be supplied by contractors in the performance of Research and Development contracts.

2. REQUIREMENTS

- 2.1 General - In order to maintain proper control of the progress and funding of Research and Development contracts, it is necessary that certain orderly reporting be accomplished by the Contractor on a regularly scheduled basis.
- 2.1.1 All documentation submitted by the Contractor shall bear the control number assigned by the Contracting Officer's Technical Representative. This control number shall appear on all correspondence, reports, etc., submitted by the contractor under the contract.
- 2.2 Types of Reports - The following types of reports shall be submitted by the contractor. Specific reports shall include, but not necessarily be limited to, the designated information.
- 2.2.1 Monthly - A monthly report shall be prepared as of the 20th day of each calendar month. The first monthly report shall be prepared as of the last working day of the first full calendar month subsequent to the date of contract. Monthly reports shall be mailed so as to reach the consignee(s), stated in the contract, not later than the second business day after the reporting period. Each Monthly report shall provide the following, with negative reporting if applicable:

- 2.2.1.1 A statement of the activity on the project during the month and the percentage of work completed as of the reporting date.
- 2.2.1.2 A statement of the planned activity for the next month.
- 2.2.1.3 A statement of pending, unresolved technical problems.
- 2.2.1.4 A statement of pending, unresolved contractual problems.
- 2.2.1.5 A statement for the record, of agreements or understandings reached orally during the reporting period on technical matters not requiring the approval of the Contracting Officer.
- 2.2.1.6 A statement of any proposed change, agreement or understanding which requires the approval of ☐ The contractor is cautioned not to proceed in a situation requiring the prior approval of ☐ until such approval has been obtained. In situations requiring correspondence with ☐ a complimentary copy shall be forwarded, simultaneously, directly to the ☐ Technical Representative.
- 2.2.1.7 A statement of unanswered, unresolved matters, unanswered correspondence, etc., and whether delinquency is attributed to the contractor or to the Government.

- 2.3 Delivery of Reports - All monthly reports and the final report shall be forwarded by the contractor to the consignee(s) specified in the contract. The contractor shall forward each report in the number of copies specified in the contract.

PAYMENT SCHEDULE

PAYMENTS:

STAT Upon receipt and acceptance of Item #11-J, Specification No. 9, Deliverable Items, and a properly executed invoice, the amount of [] shall become due and payable.

Ten percent of this amount will be withheld, and shall become payable upon successful completion of the balance of the delivered items.

STAT The final [] shall become payable after delivery and successful testing of the final deliverable items.

GENERAL PROVISIONS

ARTICLE 39

7-105.1 Alterations in Contract

The following alterations and/or additions are hereby made in the General Provisions of this subcontract.

A. ARTICLE 6 - Definitions - is hereby amended by:

1. Modifying paragraph (b) to refer to the Contracting Officer as the person executing the prime contract under which this subcontract is issued, on behalf of the Government.

2. Deleting paragraph (d).

3. Adding a new paragraph (f) as follows:

(f) The term "Contractor" as used herein means "Seller."

4. Adding a new paragraph (g) as follows:

(g) The term "contract" as used herein means "subcontract" except in Articles 1, 2, and 4.

5. Adding a new paragraph (h) as follows:

(h) The term "contracting officer" shall mean except in Articles 6, 7, 21, 23 and 24.

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6. Adding a new paragraph (i) as follows:

(i) The term "Government" shall mean in Articles numbered 9, 11, 14, 25, 30, and 31 only.

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7. Adding a new paragraph (j) as follows:

(j) The term "Government" shall mean Government and/or in Article 15 only.

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GENERAL PROVISIONS

ARTICLE 39 (continued)

- B. ARTICLE 7 - Disputes - is hereby deleted in its entirety and substituted in lieu thereof is the following:

ARTICLE 7 - Disputes

" Except as may be otherwise provided in this subcontract, any dispute arising under this subcontract, which is not disposed of by mutual agreement, shall be decided by [REDACTED] decision shall be final and conclusive and Seller shall, pending a final determination of any dispute hereunder, proceed diligently with the performance of this subcontract and in accordance with [REDACTED] decision. Nothing in this clause shall be construed to deny to either party the right to resort to a court of competent jurisdiction for adjudication of any dispute arising out of this subcontract. "

- C. ARTICLE 25 - Interest - is hereby modified by deleting therefrom the phrase enclosed in the parenthesis which reads as follows:

"Net of any applicable tax credit under Internal Revenue Code. "

SECTION B

FIXED PRICE SUPPLY PROVISIONS

ARTICLE 23 Alterations

The following alterations and/or changes are hereby made to the Fixed Price Supply Provisions Form 1424B.

A. DEFINITIONS - Add Article 24 "Definitions" as follows:

1. Modify Articles 1, 2, 3, 8, 10, 12, 13, 16, 18, 20, 21 by deleting the term "Contracting Officer" and substituting Authorized Representative."
2. Modify Articles 1, 3, 4, 5, 6, 8, 12, 13, 16, 18, 20 by deleting the word "Government" and substituting

B. Article 17 - Delete in its entirety.

C. Article 19 - Delete in its entirety.

May 25, 1968

Revised July 3, 1968

Revised July 15, 1968

COMPUTER PROGRAM REQUIREMENTS
for the
ULTRA-HIGH PRECISION STEREOCOMPARATOR

STATEMENT OF WORK

1. Scope

STAT [] will supply and test an operating computer program for the Stereocomparator. The computer program is required for the purpose of:

A. Communicating with the Stereocomparator operator via the teletype unit.

B. To perform the input/output transfers between the Stereocomparator registers and the computer.

C. To perform computations and other data manipulations.

In general, the program provides the mathematical system interface between the various subassemblies of the

Stereocomparator and the [] Model DDP 516 Computer. STAT

The performance specifications achieved by the computer program must be fully compatible with the requirements of the Ultra-High Precision Stereocomparator. The computer program is generally described by:

STAT (1) [] Proposal P-67-8386, dated December 1, 1967.

STAT (2) [] Computer Program Specifications and Instructions, dated February 9, 1968, which was prepared for [] under Subcontract

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[]

(3) Additional applicable specifications and require-

ments, together with technical reports and communications including [] P-67-8345 dated

October 19, 1967, Attachment 1 to the previous document. Section 6 and Appendices 1 through 5 of the Final Report [] Job 234, a paper by Mr.

[] titled "Analytical Treatment of Strip and Pan Photos" dated November 1967, "Non Real Time Computations" by [] dated November 10, 1967, and preliminary program Flow Charts dated November 15, 1967, prepared during the design contract []

2. Program Management and Control

[] is responsible for the timely completion of the subcontract and for preparing and maintaining a schedule of intermediate commitments established by the work program and the requirements of the Statement of Work.

[] expects to work closely with [] during the performance of this subcontract to insure that there will be no delay due to interfacing problems or lack of understanding of the overall requirements.

3. [] Furnished Materials

[] must furnish, as part of this subcontract, all material, equipment, supplies, components, subassemblies and any other device or service required for the performance of

the work, and not herein specified to be supplied by []

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4. [] Furnished Materials

[] will have access to the following [] equipment at the [] plant:

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- A. [] DDP 516 Computer with all standard software, available from 8 A.M. to midnight on a scheduled cooperative basis compatible with [] working hours.
- B. [] ASR-35 teletype unit. The teletype unit includes a paper tape punch and a paper tape reader.
- C. An [] 526 card punch.
- D. The [] Ultra-High Precision Stereocomparator.
- E. High Speed Input Device.
- F. High Speed Output Device.
- G. Office accommodations for programmers from []

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25X1

5. Acceptance Test

The acceptance test will be performed as described in the test procedures, Item 6. The tapes representing the programs will be carefully inspected at the [] plant. Additionally, the tape or tapes will be run through the tape-reading equipment to insure that there are no difficulties with free-running of the tape.

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In addition to the mechanical test, the tapes representing the program will be loaded into the computer and the program tested by operation of the computer in a mode simulating the Stereocomparator operation.

The computer program is subject to a final acceptance test as part of the acceptance tests of the Stereocomparator performed at the [] plant.

The test at [] will be with the assistance of [] STAT

A second test will be performed on the computer program at [] customer's site. Should assistance from [] be STAT
required in the performance of these test it would be covered by a separate contract.

6. Test Procedures

A. The computer program will be tested initially on the [] DDP 516 computer in a mode simulating the Stereocomparator. Finally the program will be tested as part of the overall operating system of the Stereocomparator.

The applicable test procedures will be prepared by [] subject to review and approval by [] STAT
Two (2) copies of the procedure for the first review will be supplied to [] by January 1, 1969. [] will review and STAT
return the test procedures to [] by STAT
February 1, 1969. [] shall make the nec- STAT
essary corrections or alterations to the procedures and

provide four (4) copies to [] by March 1, 1969. [] STAT
will review and return annotated copies to [] STAT
[] by May 1, 1969. Twelve (12) copies of the final
approved test procedures are required at [] by July 1, 1969. STAT

B. In addition to the finalized design computer program
tape required for regular operation of the Stereocomparator,

[] must prepare a test tape for the use of [] STAT

This test tape will be used by [] to optimize the
various servo drives of the optical system and the stages
while under computer control. The optics and the Image
Analysis system will not be available during this servo test
period, and so a real time program with arbitrary coefficients
and certain required operating parameters will be prepared
by [] selectively from the computer programming
specifications. STAT

7. Computer Program Specifications

[] will furnish to [] two (2) copies of any
program description and specifications revised by [] STAT
[] during the performance of this Subcontract. The program
description and specifications are to be delivered to [] as soon
as a revision is made in order that [] may be cognizant of
changes as soon as they occur. Upon completion of the Sub-
contract, [] will send twelve (12) copies of
each program description and specifications to [] STAT

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Upon completion of this Subcontract, [] will
send to [] any original documents, including reports, speci-
fications or other source documents prepared during the computer
programming Contract [] and this Subcontract.

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8. Manuals

[] will prepare an initial set of two (2)
followed by four (4) revised draft copies, and twelve (12) final
copies of Operational Instructions, Programming Instructions,
or other information essential to the use and modification of the
computer program. Included will be any requirements for special
mathematical consideration or programming treatment. The two
(2) initial draft copies will be delivered to [] by December 1, 1968.
[] will review and return the revised or annotated initial draft
copy to [] by January 1, 1969. []
will then deliver to [] four (4) copies of the second revision
by February 1, 1969. [] will review, and if required, return
these revisions to [] by April 1, 1969. []
[] will then deliver to [] final revised copies of the Manuals
on June 1, 1969.

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9. Reports

[] will supply [] with monthly progress
reports due as of the 20th day of each month per Specification
DB-1001 (modified). These reports will show the status of the

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performance of the Subcontract, and will specifically point out the items of the program deviating from the plan and the schedule. In addition, any technical problems will be reviewed, and the appropriate corrective measures will be described in the report.

10. Performance Specifications

A. The performance specifications achieved by the computer program in directing the system of the Stereocomparator must be fully compatible with the requirements of the Ultra-High Precision Stereocomparator, taking into account that the least count of the measuring system is 0.1 micrometer. The effectiveness of the computer programming as related to the system performance actually achieved in the assembled Stereocomparator system, as determined by the acceptance tests at will be the primary basis for acceptance or rejection of the computer program and tape.

B. All equipment, components, and devices required for the production of the computer program tape or accessory to it not otherwise specifically provided by this contract, must be included by Errors or omissions in the

tape must be rectified by

These errors or omissions will in no way reduce the requirement that the computer program tape must perform to specification and must be compatible with the requirements of the Stereocomparator.

C. Conflict in System Performance Specifications

In the event of a conflict between the various requirements and specifications, then paragraph 10.A. will be the primary requirement. Paragraph 10.D. represents the secondary requirement and the minimum performance specifications.

D. Computer Program Performance Specifications

- (1) A computer program is to be written which will operate in a DDP-516 Computer.

Configuration of the computer is:

- a) 16384 words of core storage.
- b) High speed arithmetic option.
- c) ASR-35 teletype input/output (includes tape punch and reader).
- d) Single word transfers to or from various Stereocomparator interface registers.
- e) One interrupt line, pulsed by an external clock (clock is part of Stereocomparator).
- f) Standard in all other respects.

- (2) This computer program is required to communicate with an operator via the teletype unit, to perform input/output transfers to or from the Stereocomparator registers, and to perform computations and other data manipulations, all of which together will enable the Stereocomparator to operate in the manner which has been prescribed.

Operational and performance requirements for the Stereocomparator were specified to [redacted] during the performance of the [redacted] computer programming specifications and instruction Subcontract [redacted] prepared the document entitled "Computer Program Specifications and Instructions" which is the final report on Subcontract [redacted] and is referenced herewith.

Insofar as it is consistent with, and adequate for, the requirement stated above, this document is to constitute the detailed specification for the computer program. Alterations to, or deviations from, portions of the document may be specified by [redacted] determines that such portions are inconsistent with, or inadequate for, the functioning of the Stereocomparator. Any alterations or deviations required by [redacted] that are not included in the scope of the work shall be considered as a change of scope, and amendments to the contract shall be made.

- (3) Various portions of the computer program may be written in an appropriate programming language (such as Fortran or DAP) or directly in machine language as is expedient.
- (4) All portions of the program must ultimately exist as punched tape in machine language code. The operational program, including

all subroutines and all arithmetic procedures, must be capable of totally residing in the computer memory (i.e., "program chaining" is not allowed). The punched tape is to be of the self-loading type. Once loaded, the program must be capable of running throughout its entire extent without requiring any additional input from any punched tape.

11. Deliverable Items

A. Two sets of computer program tapes. The program is generally described by [] "Computer Program and Specifications" final report on Subcontract No. [] and [] programming proposal P-67-8386 of December 1, 1967, together with the applicable specifications and requirements, and the technical reports and communications relative to the Stereocomparator design effort, as outlined in the Statement of Work - Scope, paragraph C.

These tapes are required at [] by June 1, 1969. The acceptance test to be performed on these tapes is scheduled for June 23, 1969. This schedule may be altered up to December 23, 1969 by [] under the scope of this contract.

B. The tapes will be plastic or other suitable maximum life material compatible with the tape reader included in the [] Stereocomparator system. The tape is to be punched

with the machine language code of all portions of the program as finally assembled. This includes all arithmetic procedures used in the program.

C. Twelve (12) copies of the typed symbolic machine language listing of all portions of the computer program as available per software. **STAT**

D. Twelve (12) copies of the typed map showing the location in the memory of all subroutines and other significant portions of the computer program.

E. Twelve (12) copies of the typed statements of all portions of the computer program which are initially written in Fortran language.

F. Twelve (12) copies of the listing and typed statements of any trouble-shooting aids which are initially written as part of the computer program, but subsequently are deleted from the final program tape.

G. Twelve (12) copies of the updated version of the specifications and flow charts for the computer program showing as accurately as possible the finally existing program structure.

H. Two (2) copies of any information data such as revised specification and flow charts, or computations are to be sent to as the information becomes available. This requirement is for the purpose of maintaining up-to-date information at the plant, and is not related to the requirements of the other end product deliverable items. **STAT**

I. Twelve (12) copies of the final revised test procedures are to be delivered to ☐ on July 1, 1969. See Item 6, "Test Procedures" for the review copy schedule.

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J. One test tape of a real time program for Stereocomparator checkout without installation of optics. This program will simulate stereo-operation prior to delivery of the actual optical system. This tape is required at ☐ by December 1, 1968. Acceptance tests on this item will commence by January 15, 1969.

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K. ☐ representatives may elect to be present during all or part of the performance testing/qualification by

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☐ must notify ☐ thirty (30) days prior to the initial date of testing.

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L. Seven (7) copies of the Monthly Technical reports per Specification No. DB 1001 (as modified). The reports are due on the 20th day of each month, and should represent the status of the work as of the current month.